

Cope (E. D.)

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PALEONTOLOGICAL BULLETIN, No. 32.

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SECOND CONTRIBUTION

TO THE

History of the Vertebrata

OF THE

PERMIAN FORMATION OF TEXAS.

**FIGURES.**

BY E. D. COPE.

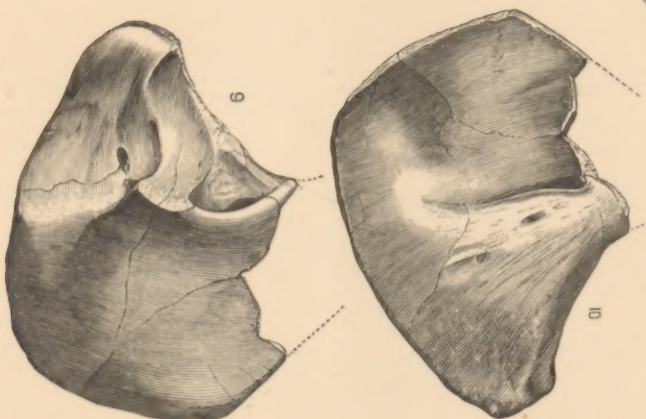
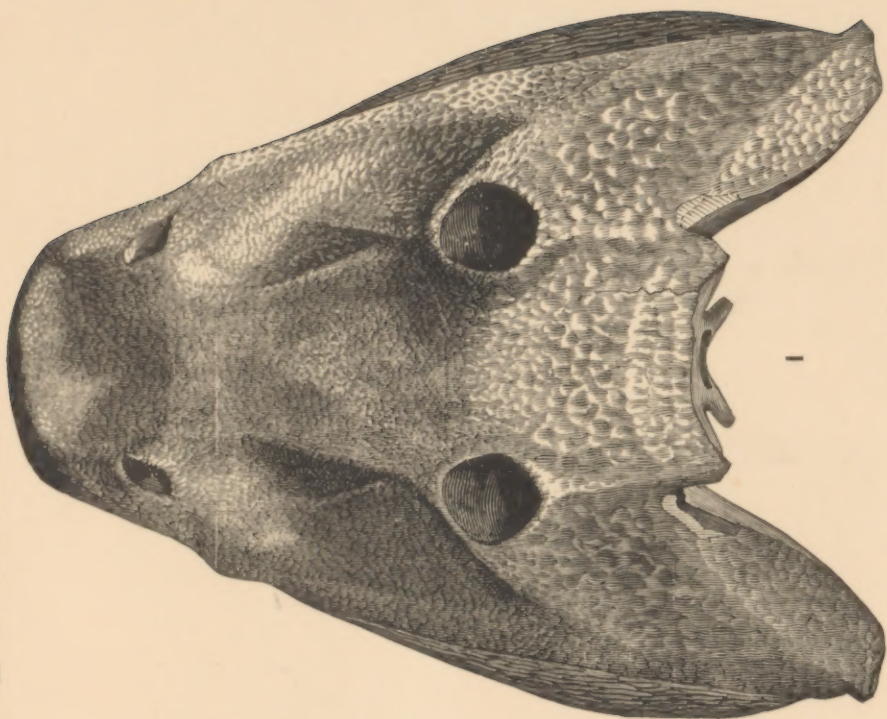
MAY 2, 1881.

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Proc. Amer. Philos. Soc., Vol. XIX, p. 56.

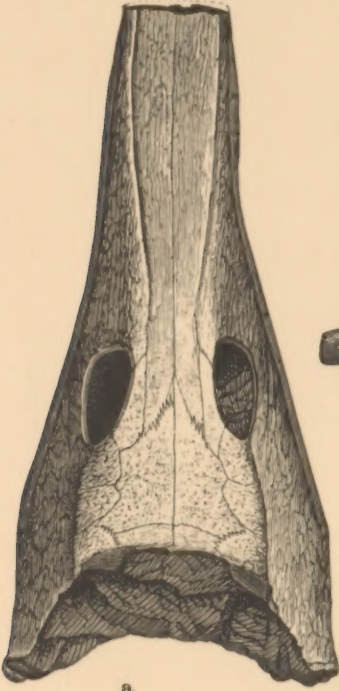


SURGEON GEN'L'S OFFICE  
LIBRARY.

PLATE I.





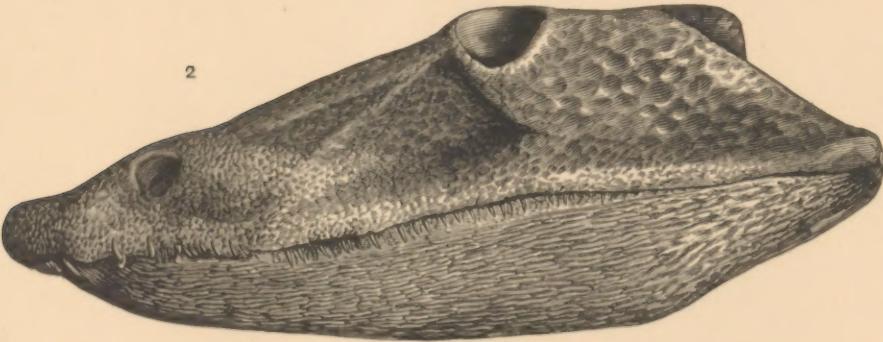


a



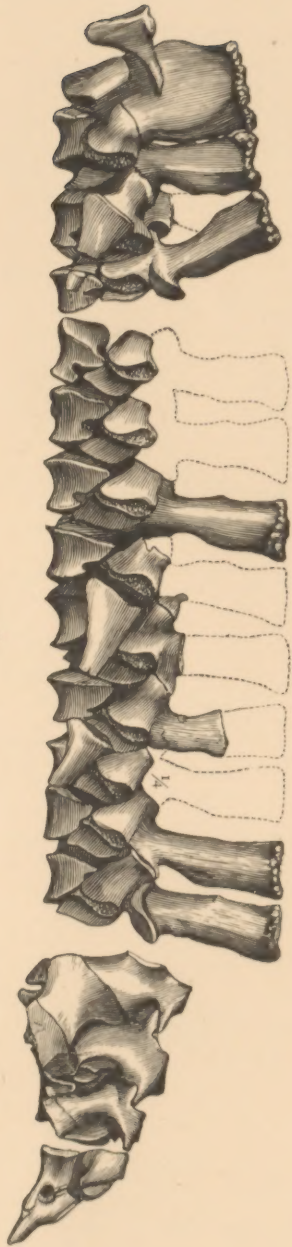
b

2



a-b CRICOTUS sp.  $\frac{1}{2}$ .  
2 ERYOPS MEGACEPHALUS.  $\frac{1}{3}$ .





5



6

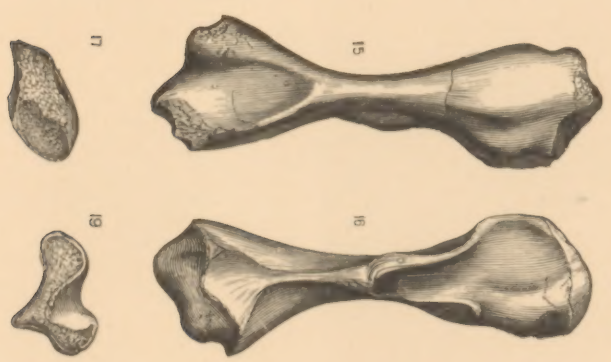
ERYOPS MEGACEPHALUS.  $\frac{1}{2}$ .





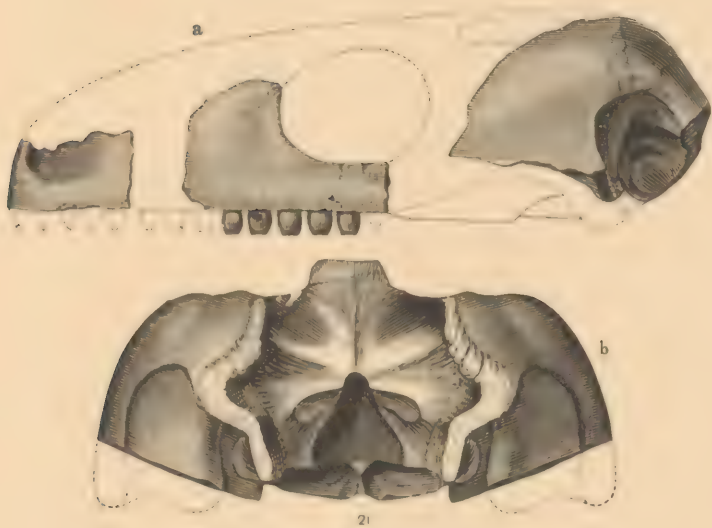
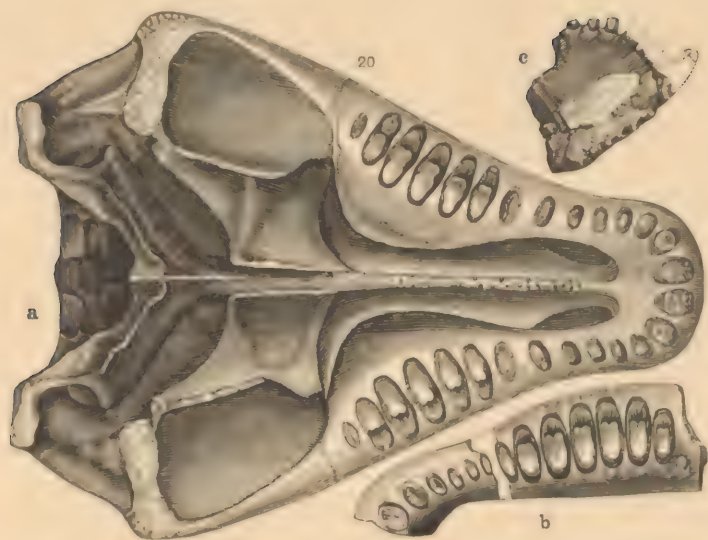


PLATE IV.



ERYOPS MEGACEPHALUS. 15.

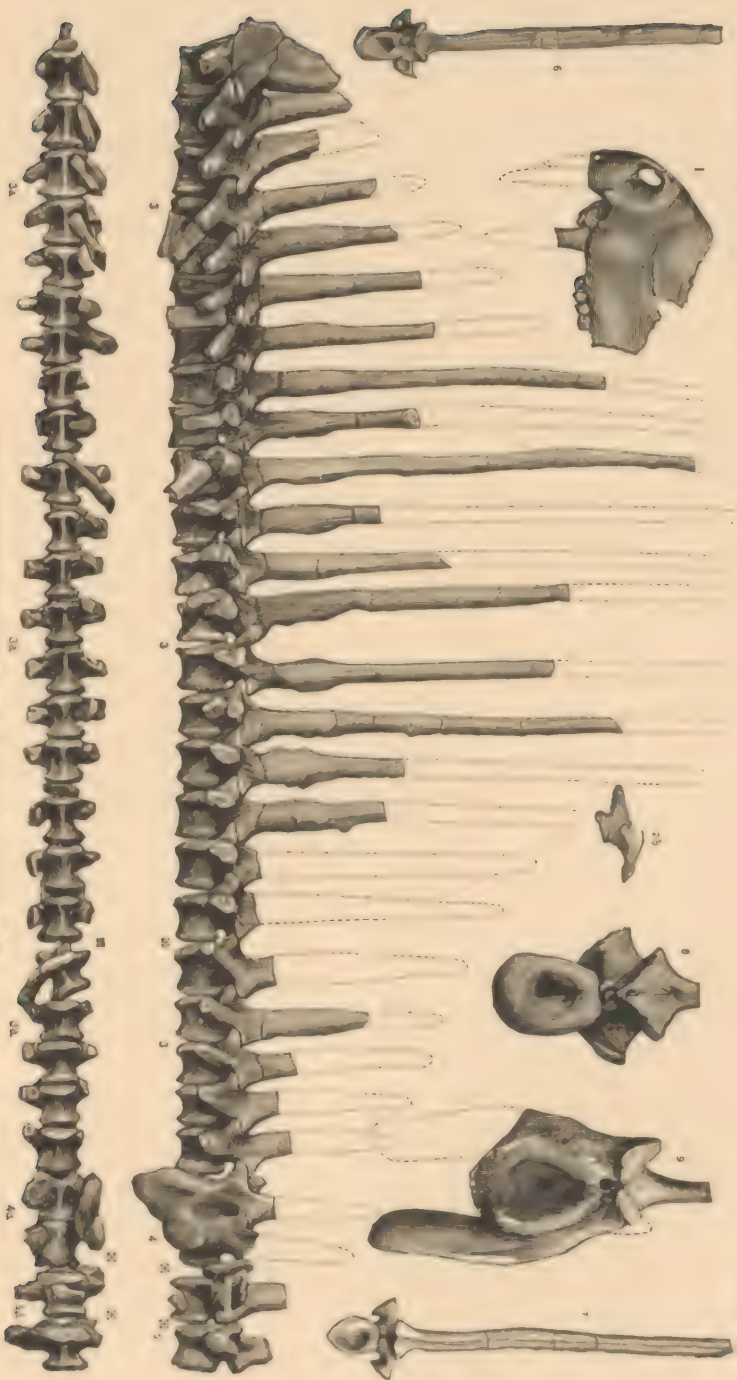




EMPEDIAS MOLARIS.  $\frac{1}{2}$ .







22-27 DIMETRODON INCISIVUS,  $\frac{1}{2}$ , except 8 and 9, =  $\frac{1}{3}$ .





(From the *American Naturalist*, February, 1881.)

CATALOGUE OF VERTEBRATA OF THE PERMIAN FORMATION OF THE  
UNITED STATES.

PISCES.

CROSSOPTERYGIA.

ECTOSTEORHACHIS Cope; Pal. Bull., No. 32, 1880, p. 19.

1. *E. nitidus* Cope; l. c. Texas.

DIPNOI.

CTENODUS Agass.

2. *C. fossatus* Cope; Proc. Amer. Phil. Soc. 1877, p. 54. Eastern Illinois.
  3. *C. gurleianus* Cope; l. c., p. 55. Eastern Illinois.
  4. *C. periprion* Cope; Proc. Amer. Phil. Soc. 1878, p. 527. Texas.
  5. *C. porrectus* Cope; l. c. Texas.
  6. *C. dialophus* Cope; l. c. p. 528. Texas.
  7. *C. pusillus* Cope; Proc. Amer. Phil. Soc., 1877, p. 191. Eastern Illinois.
- PTYONODUS Cope; Proceed. Amer. Philos. Soc. 1877, p. 192.
8. *P. vinslovii* Cope; Proc. Acad. Philada. 1876, p. 410. Eastern Illinois.
  9. *P. paucicristatus* Cope; Proc. Amer. Phil. Soc. 1877, p. 54. Eastern Illinois



## SELACHII.

## JANASSA Müntz.

10. *J. gurleiana* Cope; Proc. Amer. Phil. Soc. 1877, p. 191. Eastern Illinois.
11. *J. strigilina* Cope; *S. linguaformis* Cope; l. c. p. 53, not of older authors. Eastern Illinois.
12. *J. ordiana* Cope; Texas.

## DIPLODUS Agass.

13. *D. ? compressus* Newb. Eastern Illinois.
14. *D. sp.* Texas.

## ORTHACANTHUS Agass.

15. *O. gracilis* Newberry. Eastern Illinois.
16. *O. quadriseriatus* Cope; l. c. p. 192. Eastern Illinois.

## BATRACHIA.

## STEGOCEPHALI.

GANOCEPHALA Owen, Cope (emend.) Amer. Natur. 1880, p. 60.

ERYOPS Cope; Proc. Amer. Phil. Soc. 1877, p. 188.

17. *E. megacephalus* Cope; l. c. Texas.

TRIMERORHACHIS Cope; Proc. Amer. Phil. Soc. 1878, p. 524.

18. *T. insignis* Cope; l. c. Texas.

ZATRACHYS Cope; l. c. p. 523.

19. *Z. serratus* Cope; l. c. Texas.

PARIOXYS Cope; l. c. p. 521.

20. *P. ferriculus* Cope; l. c. Texas.

PANTYLUS Cope; Bull. U. S. Geol. Surv. Terr. 1881 (80).

21. *P. cordatus* Cope; l. c. Texas.

EMBOLOMERA Cope, American Naturalist, 1880, p. 510.

CRICOTUS Cope; Proceed. Acad. Phila. 1876, p. 405.

22. *C. gibsoni* Cope; Proc. Amer. Phil. Soc. 1877, p. 185. Eastern Illinois.

23. *C. heteroclitus* Cope; Proc. Acad. Philada. 1876, p. 405. Eastern Illinois; Texas.

## REPTILIA.

THEROMORPHA Cope; American Naturalist, 1878, p. 829.

PELYCOSAURIA Cope; l. c.

*Diplocaulidæ.*

DIPLOCAULUS Cope; Proc. Amer. Phil. Soc. 1877, p. 187.

24. *D. salamandroides* Cope; l. c. Eastern Illinois.

*Clepsydropidæ.*

PARIOTICHUS Cope; Proc. Amer. Phil. Soc. 1878, p. 508.

25. *P. brachyops* Cope; l. c. Texas.

ECTOCYNODON Cope; l. c.

26. *E. ordinatus* Cope; l. c. Texas.

ARCHÆOBELUS Cope; Proc. Amer. Phil. Soc. 1877, p. 192.

27. *A. vellicatus* Cope; l. c. Eastern Illinois.

L EPSYDROPS Cope; Proc. Acad. Philada. 1876, p. 404.

28. *C. collettii* Cope; l. c. p. 407. Eastern Illinois.

29. *C. vinslovii* Cope; Proc. Amer. Phil. Soc. 1877, p. 62. Eastern Illinois.

30. *C. pedunculatus* Cope; l. c. p. 63. Eastern Illinois.

31. *C. natalis* Cope; Proc. Amer. Phil. Soc. 1878, p. 509. Texas.

DIMETRODON Cope; Proc. Amer. Phil. Soc. 1878, p. 512.

32. *D. incisivus* Cope; l. c. Texas.

33. *D. rectiformis* Cope; l. c. p. 514. Texas.

34. *D. biradicatus* Cope; Bull. U. S. Geol. Surv. Terrs. 1880 (81).

35. *D. gigas* Cope; l. c. p. 515. Texas.

36. *D. cruciger* Cope; Amer. Natur. 1878, p. 830. Texas.

THEROPLEURA Cope; Proc. Amer. Phil. Soc. 1878, p. 519.

37. *T. retroversa* Cope; l. c. Texas.

38. *T. uniformis* Cope; l. c. Texas.

39. *T. triangulata* Cope; l. c. p. 520. Texas.  
 40. *T. obtusidens* Cope; Pal. Bull. No. 32, 1880, p. 4. Texas.  
 METARMOSAURUS Cope; Proc. Amer. Phil. Soc. 1878, p. 516.  
 41. *M. fossatus* Cope; l. c. Texas.  
 EMBOLOPHORUS Cope; l. c. p. 518.  
 42. *E. fritillus* Cope; l. c. Texas.  
 LYSOROPHUS Cope; Proc. Amer. Phil. Soc. 1877, p. 187.  
 43. *L. tricarinatus* Cope; l. c. Eastern Illinois.

*Bolosauridae.*

BOLOSAURUS Cope; Proc. Amer. Phil. Soc. 1878, p. 506.

44. *B. striatus* Cope; l. c. Texas.

*Diadectidae* Cope; Pal. Bull. No. 32, 1880, p. 8.

DIADECTES Cope; Proc. Amer. Phil. Soc. 1878, p. 505.

45. *D. sideropelicus* Cope; l. c. Texas.

46. *D. phaseolinus* Cope; Pal. Bull. No. 32, 1880, p. 9. Texas.

EMPEDOCLES Cope; Proc. Amer. Phil. Soc. 1878, p. 516.

47. *E. alatus* Cope; l. c. Texas.

48. *E. latibuccatus* Cope; l. c. Texas.

49. *E. molaris* Cope; Pal. Bull. No. 32, 1880, p. 10. Texas.

HELODECTES Cope; Pal. Bull. 11, No. 32, p. 11.

50. *H. paridens* Cope; l. c. Texas.

51. *H. isaaci* Cope; l. c. p. 12. Texas.

## SYNOPSIS.

PISCES.....			15
<i>Crossopterygia</i> .....		1	
<i>Dipnoi</i> .....		8	
<i>Selachii</i> .....		7	
BATRACHIA.....			7
<i>Stegocephali</i> .....		7	
<i>Ganocephala</i> .....	5		
<i>Embolomera</i> .....	2		
REPTILIA.....			28
<i>Theromorpha</i> .....		28	
<i>Pelycosauria</i> .....	28		
Total number of species.....			51

—E. D. Cope.

Published February 1, 1881.



